DOCUMENT RESUME

ED 456 196 UD 034 371

AUTHOR	Kurlaender, Michal; Yun, John T.
TITLE	Is Diversity a Compelling Educational Interest? Evidence from Louisville.
PUB DATE	2001-00-00
NOTE	32p.; In: Orfield, Gary, Ed., Diversity Challenged: Evidence on the Impact of Affirmative Action. Cambridge, Harvard Education Publishing Group, 2001. p111-141. See UD 034 365.
PUB TYPE	Reports - Research (143)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Academic Aspiration; Black Students; Citizenship; Court Litigation; Critical Thinking; *Diversity (Student); Educational Legislation; *Equal Education; High School Students; High Schools; Minority Group Children; Public Schools; Racial Segregation; School Desegregation; Student Attitudes; Thinking Skills
IDENTIFIERS	Jefferson County Public Schools KY

ABSTRACT

This study evaluated whether or not there was a compelling educational interest in diversity within the Jefferson County, Kentucky, public schools. High school students (mainly juniors) completed the Diversity Assessment Questionnaire, which asked about their experiences with diversity in their schools and classrooms. It also examined students' future goals, educational aspirations, attitudes, and interests. Participating students were categorized as White, African American, or other. This study focused on three important educational outcomes: critical thinking skills, future educational goals, and citizenship. It disaggregated the data by racial groups. Composite variables were created from those questions that represented the students' aspirations for higher education and their comfort levels living and working in multiracial environments. Overall, there were high levels of diversity in both curricular and social interactions and high levels of equality between races in the perceived educational opportunities for students. Both African American and White students reported benefiting greatly from the diversity of their schools. They believed there were strong educational benefits in all three outcomes. There was a strong uniformity in responses by racial and ethnic groups. (Contains 13 tables, 33 endnotes, and an appendix of Outcome and Predictor Variables.)(SM)

Reproductions supplied by EDRS are the best that can be made
from the original document.

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 456 196

CHAPTER 5

Is Diversity a Compelling Educational Interest? Evidence from Louisville

MICHAL KURLAENDER
JOHN T. YUN

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
L. Kelley
Harvard Univ. Civil Rights Project
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Desegregated schools are under serious attack. During the past decade, some lower federal courts have moved to dismantle existing desegregation orders and to prohibit districts not under court-ordered desegregation from using race as a factor in school assignment plans. School districts interested in continuing their desegregation efforts may now be required to prove to the courts that racial and ethnic diversity serves a compelling, educational purpose.

There currently exists surprisingly little documentation on the impact of racial and ethnic diversity on the educational experience of all students. To date, most research has focused on its impact on black students and consists largely of analyzing test scores. There has been very little effort to evaluate how diversity affects the learning of white, Latino, and Asian students. Yet this information is critical not only to proving compelling educational value legally, but also to achieving a richer understanding of the overall impact of racially and ethnically diverse schools on the moral, intellectual, and social development of students. As judges and school boards make policy decisions that dramatically alter the learning environment, we need a better understanding of whether diversity enhances educational outcomes in measurable ways. Through this study, we extend the research available on this critical question and assess whether or not there is a compelling educational interest to diversity in the Jefferson County, Kentucky, schools for both white and minority students.

UD034371

2

BEST COPY AVAILABLE

The data used in this chapter are from a survey about student experiences with diversity in their schools and classrooms. We surveyed a group of high school students—primarily in the 11th grade—from the Jefferson County School District in Louisville, Kentucky. We identified several important educational outcomes—critical thinking skills, future educational goals, and citizenship—and disaggregated the data by racial groups. We also created composite variables from these questions that represent the students' aspirations for higher education and their comfort levels living and working in multiracial environments. These composites were used as outcomes in several linear regression models designed to complement the disaggregated individual survey question results.

We selected high school juniors, since most have experienced many years of desegregated education but are not yet preoccupied with the distractions common to seniors. To this end we constructed a survey instrument for the express purpose of evaluating how diversity impacts certain educational outcomes. The major research question we are trying to answer is whether diversity enhances educational outcomes in measurable ways. We frame several specific research questions that address and inform this larger issue, specifically:

1) Are the classes and lessons in the Louisville classrooms diverse?
2) Are the perceived opportunities for learning similar across races?
3) Can school-level diversity change student attitudes about living and working in diverse settings?

Data on research question one establish that the school system we are examining is indeed diverse. This is a precondition for determining whether or not diversity can affect educational outcomes. If a relatively desegregated district like Jefferson County does not show high levels of diversity in its curriculum or student body, clearly the other questions are moot. Research question two provides a criterion for determining whether or not desegregated schooling provides an equal opportunity of success for all students. If more diverse environments do equalize opportunity for success, then aspirations—as an indicator of perceived opportunity—should also become more equal between racial/ethnic groups in desegregated environments. Thus, this question asks, in this school system, are the perceived opportunities equal among races? Research question three looks to shed light on whether diversity in school-level variables—like curriculum—are actually associated with better educational outcomes.

Clearly, as these research questions show, gauging the impact of segregation and diversity on educational outcomes represents a difficult

challenge. The challenge is further complicated by the legal, social, political, and educational contexts in which these issues are being debated. To understand the scope and significance of this research we need to look at several factors beyond the research questions and examine their relationships to one another. First, we detail the current state of segregation in the United States, including the trends toward resegregation observed in recent years. We then examine the legal framework that circumscribes use of plans to desegregate public schools. From there we proceed to a summary of existing research describing the benefits of desegregated schools. We end by describing the methods and results of our current study, where we establish the level of diversity in the Louisville classrooms and examine how that diversity affects the educational outcomes outlined.

As the following pages detail, both black and white students attending high school in the Jefferson County School District in Louisville, Kentucky, report benefiting greatly from the diversity of their schools. They report strong educational benefits in all three categories: critical thinking skills, future educational goals, and principles of citizenship. The uniformity in responses by racial and ethnic groups affirms the finding of Justice Lewis Powell in *Regents of the University of California v. Bakke* (1978) that diverse educational settings foster stronger learning experiences for all students and help to prepare them to live and work in a multiracial society.

Segregation

A 1999 report released by The Civil Rights Project at Harvard University, *Resegregation in American Schools*, outlines the trends of resegregation in our nation's schools, as well as the rapid demographic changes that our schools are facing.[1] As the nation becomes more racially and ethnically diverse, separation by race is becoming more pronounced in our schools. Today, the country's largest school systems are only serving a small minority of white students, and the dramatic increase in the minority school-age population demands new ways of thinking about segregation and the success of multiracial schools. The greatest progress toward desegregation in the South after the U.S. Supreme Court's *Brown v. Board of Education* decision came between the mid-1960s and the early 1970s. The 1964 Civil Rights Act led to increased enforcement of *Brown*, and authorized busing.[2] By the mid-1970s the South was the most integrated region of the country for both blacks and whites.[3] According to the *Resegregation* report, this degree of progress began to turn around in the late 1980s. The more recent increase in segregation is occurring in regions that have his-

torically been the most integrated within the United States, with the largest percentage of black enrollment.

Kentucky, along with Delaware, showed the largest declines in segregation during the busing era of the 1970s, partly because both states implemented a city-suburban desegregation plan in the large metropolitan areas where the majority of minority students lived.[4] The changing patterns of black segregation in Kentucky over the last 30 years is illustrated by the exposure index which shows the percentage of white students in schools attended by the typical black student.[5] In 1970, the typical black student in Kentucky attended a school that was 49 percent white. By 1996, this figure had increased to 69.1 percent.[6] From 1970 to 1980 there was an increase of nearly 25 percent in the number of white students attending schools that black students were attending; from 1980 to 1996 that percentage fell by 5.2 percent.[7] More than a million U.S. students have been desegregated in countywide districts, including both city and suburban neighborhoods, for more than a quarter century. Aside from Louisville and Wilmington, which were merged by the courts, these are districts that had countywide systems before desegregation. Such systems lead the nation in the depth and stability of their integration.

Legal Framework

Recent court decisions have moved districts from mandatory integration under *Brown* to voluntary policies. Districts once required by the court to desegregate are now filing for unitary status, claiming that the district has eliminated all of the effects of past discrimination.[8] The dominant theme in these decisions is that the courts should withdraw their oversight after a few years and return control to local officials.[9] By the late 1990s some lower federal courts took more dramatic action, prohibiting school districts not under court-ordered desegregation from taking any explicit steps to preserve integration, such as maintaining racial balance in magnet schools. This has often led to serious intensification of segregation and created minority schools with very high concentrations of poverty. If a school district is not under a federal desegregation order, it would have to prove a "compelling interest" to justify considering race in any way to maintain desegregated schools. In *Bakke*,[10] the Supreme Court's key decision on this issue in higher education, the Court held that the most important such "compelling interest" would be the educational value gained for all students in college from exposure to diversity. In the 1999 *Wessmann v. Gittens*[11] case, which prohibited the continuation of desegregation goals at the magnet school, Boston Latin, the federal court held that

Boston Public Schools had not adequately demonstrated a compelling interest that supported a race-sensitive admissions policy. In more recent decisions in Rochester, New York, and Louisville, the fact that diversity can be a compelling interest was clearly recognized.[12] This survey represents an effort to assess whether or not there is such a benefit in the Jefferson County schools for both white and minority students.

In his decisive opinion in the *Bakke* case, Justice Powell outlined the ways in which diversity serves to enhance education. This opinion has served as the cornerstone of affirmative action policies that consider race as a factor in university admissions. In *Bakke*, Powell relied on earlier Supreme Court decisions related to the importance of interracial preparation for the professions and on Harvard College reports describing how a diversity of experiences can contribute to the overall learning environment. These emphasize that the university community should reflect the diversity in our society in order to produce richer educational possibilities for students to gain understanding. The Harvard report cited in *Bakke* states, "The effectiveness of our students' educational experiences has seemed to the Committee to be affected as importantly by a wide variety of interests, talents, backgrounds, and career goals as it is by a fine faculty and our libraries, laboratories and housing arrangements."[13] At the time of *Bakke*, the Court simply accepted the judgment of the educational authorities about what they saw as an obvious relationship. Now the lower courts are raising the standard of proof.

As the only Supreme Court opinion that speaks to the rationale behind the use of race-conscious policies with the goal of diversity, *Bakke* is also important in the K–12 educational context. The benefits of diversity derived from learning among students of different backgrounds accrue just as readily at the elementary and secondary levels as at the postsecondary level. Increasing exposure and interaction among students of different races increases opportunities for learning and enhances civic values. In fact, as the nation becomes increasingly diverse, exposure to people of different ethnic and racial backgrounds earlier in the education process can only help to reduce stereotypes and promote democracy for all people. Yet most of the earlier research on K–12 desegregation is limited to benefits for black students.

Research on the Benefits of School Desegregation

There are many studies from the K–12 desegregation literature that provide evidence on the benefits of studying in a diverse environment. There are three primary categories of student outcomes—enhanced learning,

higher educational and occupational aspirations, and social interaction among members of different racial and ethnic backgrounds—that may be enhanced in the integrated (diverse) classroom.[14] Minority students who attend more integrated schools have increased academic achievement and higher test scores.[15] The increase in achievement for minority children has often been attributed to access to the better educational resources, competition, and networks present in desegregated or predominantly white schools.[16] Desegregated schooling is also associated with higher educational and occupational aspirations. Segregated schools that are predominantly non-white often transmit lower expectations for students and offer a narrower range of occupational and educational options.[17] In addition, perpetuation theory[18] teaches us that only when students are exposed to sustained desegregated experiences will they lead more integrated lives as adults. Thus, desegregated experiences lead to increased interaction with members of other racial groups in later years.[19]

In addition to the above research, recent studies in higher education suggest that more diverse educational environments increase all students' level of critical thinking skills.[20] Gurin's 1999 study finds that students from all racial and ethnic groups educated in diverse settings more readily participate in a pluralistic society. Gurin's work in the higher education context suggests that much can be learned about the impact of diversity in high school on student experiences with, and attitudes toward, people of a race or ethnicity different from their own.

Overall, there is substantial evidence that desegregated schooling is associated with positive educational outcomes for minority students.[21] Yet, as stated earlier, little has been done to examine the impact of racial diversity and desegregation on minority students' white peers. Further, current court decisions around the country that aim to remove race from school assignment plans suggest that some courts assume that desegregation is no longer a compelling educational need. This study attempts to address this research void and provide empirical evidence to inform future decisions about the value of desegregation.

Survey Site

Louisville offers an important place for study because it has achieved unusually low levels of racial segregation since its city and suburban schools were merged in 1975. At that time, a federal court ordered the Jefferson County schools to desegregate. Community resistance was extremely intense, and this transition was one of the most difficult experienced by any city at the height of the desegregation era. The Jefferson County schools

have operated independently of the court order since 1980, but Louisville has retained city-suburban desegregation and is attempting to preserve desegregation in spite of a federal court decision forcing a change in magnet school policies.

In recent years, Kentucky's public schools have been among the nation's least segregated as a result of the merger between city and suburban schools. Both blacks and whites in the greater Louisville area have been educated in much more diverse schools than children living in most American communities. Since Jefferson County is a large urban area with very diverse white and black populations and a political tradition that is middle of the road on most issues, it offers a valuable setting in which to assess the experiences of students enrolled in schools that have been substantially desegregated.

The desegregation plan in Louisville was initially a purely mandatory student assignment plan between city and suburban schools, but in recent years the plan has come to rely on choice and magnet schools combined with desegregation standards. A survey of the citizens of Jefferson County in 1996 showed that a large majority of citizens preferred to continue school desegregation efforts and to rely strongly on choice and desegregation standards. The survey also revealed a strong desire to avoid segregated black schools, particularly among black citizens, of whom only 15 percent wanted one-race schools.[22] In addition, a 1996 survey of Jefferson County Public School graduates reveals students' attitudes about the importance of desegregated schooling. Graduates were asked whether they agree or disagree with the statement, "I think it is important for my long-term success in life that schools have students from different races and backgrounds in the same schools."[23] Over 83 percent of black graduates said they very strongly agreed, as did 77 percent of whites, and only about 3 percent of black and white graduates said they disagreed with this statement.[24] Overall enrollment in the district has been much more stable in the last decade than that of other large central city systems, all of which had experienced an initial loss of white students after desegregation orders were implemented. In the current school year, all of the Jefferson County high schools have substantial integration, ranging between one-fifth to one-half black students (see Table 1).

Methods and Instrumentation

The principal instrument used in this research, the Diversity Assessment Questionnaire (DAQ), consists of a 70-item student questionnaire. The instrument was developed by researchers brought together by The Civil Rights

Project at Harvard University (CRP), in collaboration with the National School Boards Association's Council of Urban Boards of Education.[25] It is designed to be a classroom-administered questionnaire that asks students about their experiences in their school and classrooms. The survey also includes questions about students' future goals, educational aspirations, attitudes, and interests. The instrument was pretested by researchers at the CRP through focus groups at two different high schools and five different classrooms—each with a very different racial composition. The results reported in this paper are part of a larger study currently undertaken by the CRP using the DAQ that is under way at several other school districts around the country.[26]

The Jefferson County School District administered the survey in early 2000. The district drew a representative sample of juniors, from which they obtained the excellent response rate of over 90 percent resulting in 1,164 returned surveys.[27] All of the high schools in the district participated in the study, and the sample drawn from the district is proportional to the total enrollment of each school. All of the results were computed in simple frequency tables and then calculated in percentages by racial group. We chose to include all people who responded to each question since we wanted to include the maximum number of opinions in each table. As a result, the number of people responding to each question varies by few respondents. The number of nonresponses on any given question is no higher than 5 percent, resulting in a total sample size for each question ranging from 1,287 to 1,158.

To measure the impact of diversity on three broad educational outcomes, we used several composite variables created from indicators in the DAQ questionnaire as both outcomes and predictors. Using Cronbach's alpha reliability and confirmatory principal component analysis, we determined the utility and reliability of these constructs and created them for use in the regression analysis (see Appendix for further discussion).[28] We analyze two different outcomes: higher education aspirations (HIEDASP) and comfort levels for living and working with members of other races (LIVE_WORK). The HIEDASP variable summarizes student responses to three questions about their future educational aspirations. The LIVE_WORK variable measures student responses to seven questions about their attitudes and interest toward living and working in a multiracial setting. To examine our specific research questions relative to both these outcomes, we also needed to create two composite predictor variables, institutional student support (SUPPORT) and the perceived curricular diversity of the school (CURDIV). The first predictor, SUPPORT, is a composite based on students' perceptions of the level of support they re-

TABLE 1 *1999–2000 High Schools in Jefferson County by % African American*

High School	*Total Enrollment*	*% African American*
Atherton	1087	20.1%
Ballard	1655	19.4%
Brown	188	39.9%
Butler	1560	20.8%
Central	985	48.8%
Doss	1014	32.0%
DuPont Manual	1754	23.7%
Eastern	1593	26.7%
Fairdale	909	25.7%
Fern Creek	1276	26.6%
Iroquois	1029	44.2%
Jeffersontown	1008	29.3%
Louisville Male Traditional	1621	25.4%
Moore	588	40.5%
Pleasure Ridge Park	1777	18.9%
Seneca	1643	20.6%
Shawnee	581	48.0%
Southern	1425	20.9%
Valley	952	27.4%
Waggener	897	32.4%
Western	582	42.6%
TOTAL	24,124	27.4%

ceive from teachers and school staff in terms of their higher education aspirations. The second predictor, CURDIV, is a composite based on students' reported level of diversity in the curricula of their social studies and English courses. All of the variable descriptions and corresponding DAQ survey questions can be found in the Appendix (Tables A and B).

To analyze the general benefits of a diverse student body, we presented direct student responses to the DAQ questionnaire. To further investigate the impact of perceived curricular diversity (CURDIV) and teacher support (SUPPORT), we conducted an ordinary least squares (OLS) regression analysis estimating the relationship between these constructs to two outcomes, HIEDASP and LIVE_WORK—controlling for race, father's education, mother's education, and gender.[29]

The Student Population

The survey is targeted toward high school juniors. However, due to the presence of mixed-grade classrooms, only about 81 percent of our sample is in the 11th grade; 8 percent of the respondents are in 12th grade; and 11 percent are in the 10th grade. Due to the small number of students from Asian, Hispanic/Latino, and Native American racial or ethnic backgrounds, for the purposes of this study we have broken down student respondents into the following three racial groups: white, African American, and other. All of the results from the survey are presented by these three categories (see Tables 2 and 3).

TABLE 2 *Race/Ethnicity Breakdown of the Sample*

African American	*Asian American*	*Hispanic/ Latino*	*Native American*	*White*	*Other*	*Total*
26.1%	2.1%	2.0%	1.8%	62.4%	5.67%	100%

TABLE 3 *Race/Ethnicity Breakdown of the Sample as Presented in This Study*

African American	*White*	*Other*	*Total*
26.13%	62.36%	11.51%	100%

Students come from families with widely varied levels of education—about one-sixth have graduate degrees, one-eighth are high school dropouts, and a there is a wide spread in between (see Table 4).

TABLE 4 *Parental Levels of Education*

Highest Level of Education Completed	*Mother*	*Father*
Grade School	2.3%	2.1%
Some High School	9.2%	10.4%
High School Graduate	26.6%	26.9%
Some College	17.2%	12.5%
College Graduate of Two-Year School	9.9%	6.3%
College Graduate of Four-Year School	11.7%	13.1%
Masters Degree	10.0%	9.2%
Graduate Degree	5.1%	6.1%
Not Sure	8.0%	13.5%
TOTAL	100%	100%

Results

Students' Perception of the Level of Diversity in Their School and Classrooms

We asked students in the Jefferson County School District to describe the level of diversity in their school and classes. Table 5 illustrates the extent to which students report that their school environment is diverse. Among the white students in the survey, close to 85 percent report that "quite a few" or "about half" of the students in their schools are from other racial or ethnic groups. Over 60 percent of African American students report that "quite a few" or "about half" of the students are from other racial or ethnic groups. Not surprisingly, a large percentage of students from other racial or ethnic groups, including Asians, Hispanic/Latinos, and Native Americans, report that "quite a few," "about half," and "most" of the students are from racial or ethnic groups that are different from their own.

TABLE 5 ***Student Reports of School Racial Composition***

In My School:	*White*	*Black*	*Other*
A FEW students are from racial or ethnic groups that are different from my own.	10.1%	19.5%	17.8%
QUITE A FEW, BUT LESS THAN HALF the students are from racial or ethnic groups that are different from my own.	39.1%	27.4%	22.5%
ABOUT HALF the students are from racial or ethnic groups that are different from my own.	45.6%	35.3%	30.2%
MOST of the students are from racial or ethnic groups that are different from my own.	5.1%	17.8%	29.5%

In the classroom, perceptions of the level of diversity were quite different from perceptions of school-level diversity. In fact, all students report a higher percentage of segregation by race in all four subject areas (social studies, English, math, and science). Overall, students in the district report higher levels of segregation within classrooms than by school. This could be a result of academic tracking, but our study did not explore the reasons for this pattern.

Very few students, however, report that their classes lack a substantial presence of other racial groups. Therefore, while classes may be less diverse than the school as a whole, we are nonetheless exploring the experience of students attending diverse schools with fairly diverse classes.

I. Critical Thinking Skills: Classroom Experiences, Peer Interaction, and Student Learning—Are These Classes Diverse?

In *Bakke*, Justice Powell argued that the value of diversity is grounded in the experiences students from diverse racial and ethnic backgrounds bring to the learning environment and their interactions. Patricia Gurin, a professor of psychology at the University of Michigan, conducted an extensive longitudinal study at the University of Michigan, the results of which indicate that interaction with peers from diverse racial backgrounds—both in the classroom and informally—is positively associated with a host of learning outcomes.[30] Gurin argues that diverse universities offer a climate that produces active engagement, requiring students to think in deeper, more complex ways. By exposing students to multiple, even contradictory and unfamiliar perspectives about issues, they learn to think more critically.[31] Her results have important implications for the high school setting by suggesting that educational environments producing a source of multiple and different perspectives can increase students' level of critical thinking skills and establish more complex forms of learning.

All of these theories about how diversity functions in an educational environment rely on one factor—the actual presence of diversity in the classroom and curriculum. Therefore, to address the question of how diversity has affected the educational experiences of high school students in Louisville, the DAQ survey asked about the presence of diversity in the curriculum and about learning experiences that would promote the type of rich discussion and educational opportunities that lead to better educational outcomes. In other words, as research question one asks, "Are these classes and lessons diverse?"

Table 6 includes the results from a series of survey questions that address the level of diversity in the English and social studies curriculum and whether students perceive the curriculum as contributing to their overall understanding of different points of view. Several important observations can be made from these student responses. Students reported a greater level of diversity in the social studies/history curriculum than in the English curriculum, with 45 percent of the social studies students reporting that they frequently read about the experiences of many different cultures and racial and ethnic groups, but only 19 percent of the English students reporting in the "frequently" category. In general, students from all racial groups report about the same level of diversity in the curriculum, which is apparent in looking across the rows in Table 6, suggesting that different racial groups perceive the level and impact of curricular diversity in roughly the same way.

TABLE 6 *Curricular Diversity*

Q13. ***In your social studies class, how often do you read about the experiences of many different cultures and racial and ethnic groups?***

	White (%)	*African American (%)*	*Other (%)*
Frequently	46.5	45.0	43.3
Sometimes	39.8	41.2	42.5
Rarely	10.5	11.4	11.0
Never	3.2	2.4	3.1

Q15. ***Do you think these different viewpoints have helped you to better understand points of view different from your own?***

	White (%)	*African American (%)*	*Other (%)*
Helped a Lot	33.2	28.6	25.2
Helped Somewhat	54.2	60.1	57.7
Had No Effect	12.3	9.8	13.8
Had Negative Effect	0.3	1.4	3.3

Q17. ***In your English class, how often do you read about the experiences of many different cultures and racial and ethnic groups?***

	White (%)	*African American (%)*	*Other (%)*
Frequently	19.5	19.2	17.2
Sometimes	47.2	36.1	43.8
Rarely	27.6	32.6	31.3
Never	5.7	12.0	7.8

Q18. ***During classroom discussions in your English class, are racial issues discussed and explored?***

	White (%)	*African American (%)*	*Other (%)*
Frequently	9.7	11.3	17.2
Sometimes	35.7	33.8	30.5
Rarely	41.6	32.4	38.3
Never	13.1	22.5	14.1

About 90 percent of students from all racial and ethnic groups report that exposure in the curriculum to diverse cultures and experiences has helped them to better understand points of view different from their own. This skill is critical to understanding and living in the world both socially and economically, particularly as many future economic opportunities will involve contact with people who are from different cultures and may hold divergent worldviews. Later in this chapter, we explore students' re-

ports of diversity in the curriculum and predict other educational outcomes, such as citizenship and attitudes toward living and working in multiracial settings.

We also studied the level of positive interaction among students from different racial and ethnic backgrounds. We asked students to describe their comfort level with various degrees of peer interaction in the classroom around issues of race. Table 7 outlines the results from this series of questions by racial group. A large majority of students (about 90%) from all racial groups report being comfortable or very comfortable discussing controversial issues related to race. Similarly, 95 percent of African American and 92 percent of white students report being comfortable or very comfortable working with students from different racial and ethnic backgrounds on group projects.

Ninety percent of all races felt comfortable or very comfortable learning about the differences among people from other racial and ethnic groups, and these results extend to working with students from other language backgrounds. These results suggest that the students in the Jefferson County school system are quite comfortable with peer interactions across races.

Clearly the level of diversity in these classes is quite high, as is the level of comfort discussing race-related issues. Thus the prerequisite of diversity exists. We explore in the following sections whether that diversity can influence student educational outcomes.

II. Educational Goals for the Future and College Access—
Are the perceived opportunities for learning similar across races?

A second educational outcome or goal measured by this survey is whether learning in a diverse educational setting affects students' educational goals and aspirations. In order to gauge the educational aspirations of high school students, we inquired about students' academic placement in a number of subject areas that lead to college entrance. The interpretation of our results is limited because we are unable to directly compare the results from Louisville (a racially diverse educational setting) with a less racially diverse educational setting. Thus, answering the question of how these aspirations differ by level of segregation is beyond our reach. However, if success is defined by equalizing opportunity, then aspirations—as an indicator of perceived opportunity—may also become more equal between racial and ethnic groups in desegregated environments. We refer to this as the perceived opportunity hypothesis. We test for this hypothesis in Tables 8 and 9 by comparing the responses to each educational aspiration question across races. If the responses to these questions differ sub-

TABLE 7 *Classroom Peer Interaction (How comfortable are you with the following in your classes?)*

Q19a. *Discussing controversial issues related to race?*

	White (%)	*African American (%)*	*Other (%)*
Very Comfortable	45.4	43.9	35.9
Comfortable	44.5	46.3	48.4
Not Very Comfortable	8.4	6.1	10.9
Does Not Apply	1.7	3.7	4.7

Q19b. *Working with students from different racial and ethnic backgrounds on group projects?*

	White (%)	*African American (%)*	*Other (%)*
Very Comfortable	61.8	60.0	44.5
Comfortable	30.8	34.9	45.3
Not Very Comfortable	7.1	3.1	6.3
Does Not Apply	0.3	2.0	3.9

Q19c. *Learning about the differences between people from other racial and ethnic groups?*

	White (%)	*African American (%)*	*Other (%)*
Very Comfortable	61.2	61.3	52.3
Comfortable	32.4	35.3	39.1
Not Very Comfortable	5.5	1.7	5.5
Does Not Apply	0.9	1.7	3.1

Q19d. *Working with students from other language backgrounds?*

	White (%)	*African American (%)*	*Other (%)*
Very Comfortable	45.8	48.5	39.8
Comfortable	40.4	37.6	46.9
Not Very Comfortable	10.7	9.5	8.6
Does Not Apply	3.1	4.4	4.7

stantially across races, this supports an interpretation that perceived opportunities had not been equalized. However, if the answers across racial categories are similar, this supports the interpretation that perceived opportunities are more equal.

The responses to questions about educational aspirations in Tables 8 and 9 reveal close similarities by racial group that imply an equality of perceived opportunity, possibly fostered by the implementation of the desegregation plan. For example, approximately 50 to 60 percent of stu-

TABLE 8 *Educational Aspirations (Please tell us how interested you are in the following:)*

Q22a. *Taking a foreign language after high school.*

	White (%)	African American (%)	Other (%)
Very Interested	13.3	14.7	21.4
Interested	17.6	26.4	24.6
Somewhat Interested	29.2	32.2	27.0
Not Interested	39.9	26.7	27.0

Q22b. *Taking an honors or AP mathematics course.*

	White (%)	African American (%)	Other (%)
Very Interested	31.9	23.6	27.8
Interested	25.0	31.2	27.0
Somewhat Interested	19.9	24.7	21.4
Not Interested	23.1	20.5	23.8

Q22c. *Taking an honors or AP English course.*

	White (%)	African American (%)	Other (%)
Very Interested	31.9	29.9	31.7
Interested	29.6	30.6	26.2
Somewhat Interested	19.5	25.4	23.8
Not Interested	18.9	14.1	18.3

Q22e. *Going to a four-year college.*

	White (%)	African American (%)	Other(%)
Very Interested	63.5	62.0	47.6
Interested	21.2	23.6	31.0
Somewhat Interested	8.7	11.0	10.3
Not Interested	6.7	3.4	11.1

dents from all racial groups indicate that they are "very interested" or "interested" in taking honors or Advanced Placement (AP) mathematics or English courses. Also, roughly even numbers of all students are "interested" or "very interested" in taking a foreign language after high school. A remarkable 80 to 85 percent of students report an interest in attending a four-year college (See Table 8).

The consistency of these numbers across groups is very important and begs the question, "How do these results compare to those in districts with higher levels of segregation?" Unfortunately, we cannot answer this

TABLE 9 *Access to College Information*

Q10. ***How strongly have teachers, counselors, or other adults in this school encouraged you to attend college?***

	White (%)	*African American (%)*	*Other (%)*
Strongly encouraged	63.9	58.2	61.4
Somewhat encouraged	28.9	31.7	33.9
Neither encouraged nor discouraged	6.7	9.8	2.4
Discouraged	0.4	0.3	2.4

Q11. ***How much information about college admissions have your teachers, counselors, or other adults in this school given you? (such as SAT, ACT, financial aid, etc.)***

	White (%)	*African American (%)*	*Other (%)*
A lot	38.1	39.5	31.8
Some	41.5	39.1	44.2
A Little	15.8	18.0	19.4
None	4.6	3.4	4.7

Q12. ***How strongly have your teachers, counselors, or other adults in this school encouraged you to take honors and/or AP classes?***

	White (%)	*African American (%)*	*Other (%)*
Very Strongly	25.8	20.5	18.6
Somewhat strongly	47.1	39.9	49.6
Not at All	26.2	38.2	29.5
Discouraged	1.0	1.4	2.3

until surveys of other districts are complete. However, these results are quite suggestive and show that within this desegregated district the educational aspirations of the different races are quite similar.

Providing access to college is also an important goal for most high schools. Do students in the Jefferson County Schools report adequate support and access to information about college? More important, where there is such racial uniformity in interest to pursue college, is the access to information equally uniform for all racial and ethnic groups? Among white students, 93 percent report having school staff encouragement to attend college; African American students report a similar 90 percent; and among students from other racial and ethnic backgrounds, 95 percent report encouragement. Approximately 80 percent of all students report receiving a lot or some information about college admissions procedures,

and less than 5 percent of all students report receiving no information about college admissions.

However, students report different levels of encouragement to enroll in an AP or honors class by racial group. Among white students, 73 percent report that teachers or other school officials encourage them to take AP or honors classes, 68 percent of students from other racial and ethnic groups report this type of encouragement, and only 60 percent of African American students report having teachers or other school staff encourage them to enroll in an AP or honors course. In terms of aspirations, the differences between racial groups are few, whereas in terms of encouragement to enter AP courses, more important differences exist. However, it is important to note that a significant majority of African American, white, and other minority students are being encouraged to attend gateway classes that may ultimately lead to better college or postsecondary education attendance for all racial groups.

Regression Analysis

To complement the findings in Tables 8 and 9, the OLS analysis allows us to see whether there are substantial and statistically significant differences in education aspirations across race, gender, and immigrant status.[32] We are also able to focus on the importance of features such as institutional support (SUPPORT) and curricular diversity (CURDIV) in fostering higher educational aspirations. In addition, by including two separate interaction terms between our school predictors—support for higher educational aspirations and curricular diversity—and the dummy variable (BLACK), we are able to directly test whether these school predictors are statistically different based on race. For instance, a statistically significant and negative coefficient on the interaction between BLACK and SUPPORT would indicate that at higher levels of institutional support black students had lower levels of higher educational aspirations than white students. However, by contrast, a nonsignificant coefficient on this interaction term would suggest that the effect of institutional support worked the same way among black and white students with similar levels of support leading to similar levels of higher educational aspirations, lending support to our perceived opportunity hypothesis.

Results from both the regression analysis and students' straight responses to the survey questions reveal important findings about higher educational aspirations. Table 10 details the models fit to estimate the effect of curricular diversity (CURDIV) and school support (SUPPORT) on students' higher educational aspirations. First notice that in all models (1)–(7) we see that teacher and school staff support does have a positive

impact on Louisville students' higher education aspirations. The construct SUPPORT is statistically significant to the $p < .001$ level, controlling for students' background characteristics and curricular diversity. Second, diversity in the curriculum does not have a statistically significant impact on higher education aspirations, when controlling for SUPPORT. Note also that being female in Louisville does not have a statistically significant impact on higher education aspirations.

We also tested the potential differences by race toward higher education aspirations and found that being black in Louisville does not have a significant impact, negative or positive, on higher education aspirations. This confirms what was found in Tables 8 and 9—that black and white students have similar higher educational aspirations—and lends more support to the equally perceived opportunity hypothesis. Finally, we tested the two-way interactions between BLACK and SUPPORT and BLACK and CURDIV to see whether the effect of these two constructs on higher education aspirations (HIEDASP) may differ for black students in the district. Results from the regression models where interactions were tested (models (5), (6), and (7)) do not reveal significant differences by race. This further supports our initial findings from students' responses on the survey. Teacher and school support toward higher education aspirations do have an impact, but this does not differ for black and white students in Louisville.

III. Principles of Citizenship and Democracy—Can school-level diversity change student attitudes about their educational aspirations?

As the nation becomes increasingly multiracial, it is important to understand how the educational environment plays a role in preparing students to live and work among people different from themselves. Do students develop a consciousness of the importance of interacting with people of different backgrounds, and does this have an impact on their future goals? Gurin's work also proposes that students who experience diversity in classroom settings and in informal interactions on campus show the most engagement in various forms of citizenship and the most engagement with people from different races and cultures, both during college and beyond.[11] The first set of questions in Table 11 measures student attitudes toward the importance of working in a multiracial setting. The second set examines how students' high school experiences affected their sense of current events and political/social involvement.

In the first set of questions we examined whether students in Louisville felt prepared to work and live in the diverse settings in which they will increasingly find themselves. We recognize that preparation may

come from the home even more than it may from the school. Thus, we attempted to isolate the experience in school from other experiences that may contribute to students' overall attitudes about working in a multiracial setting. The set of questions presented in Table 11 aims to identify students' comfort level with, preparation for, and intention to operate in settings that are racially and ethnically diverse. A basic function of schools is preparing students to work and live among people different from themselves, and this level of preparation and comfort is an educational outcome of diverse school settings.

The results from Louisville students are overwhelmingly positive in this area. Over 85 percent of all students believe that they are prepared to work in a diverse job setting and that they are likely to do so in the future. More than 80 percent of African American and white students report that their school experience has helped them to work more effectively with and get along with members of other races and ethnic groups. Finally, over 90 percent of all students report that they would be comfortable working for a supervisor of a different racial or ethnic background. These results suggest that schools, which are often the place where the changing demographics of the nation are most pronounced, can help to produce young adults who are ready to operate in settings populated by people from a variety of backgrounds.

We wanted to take this hypothesis further to ascertain what types of citizens in a diverse America these schools are producing. We chose to ask students about how their high school experiences may contribute to their interests in a host of democratic principles and actions, all of which are central to the mission of public schooling in a democracy (see Table 12). The responses to these questions were encouraging, with 57 percent of white students, 65 percent of African American students, and 51 percent of other minorities stating that their interest in volunteering in their community has increased. In addition, 47 percent, 60 percent, and 45 percent of whites, African Americans, and other minorities, respectively, responded that their interest in participating in elections had increased. Finally, about 60 percent of African Americans and half of whites and other minority groups said that their interest in taking on leadership roles in their communities had increased.

While it is clear that without a comparison to less diverse districts these student responses cannot be directly attributable to the desegregation plan, it is important to note the results and think about them in the context of questions mentioned earlier, in Table 7. If these students feel "very prepared" to work within diverse environments, work more cooperatively with other racial groups, *and* are more inclined to be involved in

TABLE 10 *Results from Regression Models of Higher Education Aspirations (HIEDASP)*

	Model (1)	*Model (2)*	*Model (3)*	*Model (4)*	*Model (5)*	*Model (6)*	*Model (7)*
IMMIG	0.682 (0.405)–	0.825 (0.407)*	0.677 (0.408)	0.838 (0.411)*	0.836 (0.412)*	0.838 (0.411)*	0.836 (0.411)*
FEMALE	0.316 (0.180)–	0.167 (0.177)	0.260 (0.182)	0.145 (0.179)	0.151 (0.180)	0.146 (0.179)	0.151 (0.180)
BLACK	0.225 (0.203)	0.354 (0.200)–	0.300 (0.206)	0.385 (0.203)–	0.054 (0.718)	(0.288) (0.780)	0.043 (0.943)
SUPPORT		0.405 (0.051)***		0.400 (0.053)***	0.400 0.053)***	0.396 (0.062)***	0.400 (0.062)***
CURDIV			0.076 (0.033)*	0.011 (0.034)	0.001 (0.039)	0.011 (0.034)	0.001 (0.040)
BLKCDIV					0.035 (0.072)		0.034 (0.074)
BLKSUPP						0.015 (0.115)	0.002 (0.119)
#of Obs.	1094	1071	1069	1049	1049	1049	1049
F-stat.	2.34–	17.81***	3.01*	13.85***	11.57***	11.54***	9.91***
R-squared	0.01	0.06	0.01	0.06	0.06	0.06	0.06

Standard errors in parentheses. Significance levels: –p < .10; *p < .05; **p < .01; ***p < .001

TABLE 11 *Attitudes about Working in a Multiracial Work Setting*

Q23. ***After high school, how prepared do you feel to work in a job setting where people are of a different racial or ethnic background than you are?***

	White (%)	*African American (%)*	*Other (%)*
Very Prepared	55.1	54.9	55.6
Somewhat Prepared	40.0	39.9	35.7
Not Prepared	3.3	4.1	5.6
Reluctant to Do So	1.6	1.0	3.2

Q24. ***Do you believe your school experiences have helped you, or will help you in the future, to work more effectively and to get along better with members of other races and ethnic groups?***

	White (%)	*African American (%)*	*Other (%)*
Helped a Lot	35.2	36.1	30.2
Helped Somewhat	45.6	46.7	35.7
Had No Effect	15.9	14.8	30.2
Hurt My Ability	3.3	2.4	4.0

Q26. ***How likely do you think it is that you will work with people of different racial and ethnic backgrounds?***

	White (%)	*African American (%)*	*Other (%)*
Very Likely	43.4	49.5	44.1
Likely	42.2	39.2	39.4
Not Likely	6.0	8.9	11.8
Do Not Know	8.4	2.4	4.7

Q27. ***How comfortable would you be with a work supervisor who was of a different racial or ethnic background than you are?***

	White (%)	*African American (%)*	*Other (%)*
Very Comfortable	58.6	50.9	53.6
Somewhat Comfortable	35.3	46.2	35.2
Not Comfortable	4.0	1.8	7.2
Reluctant	2.2	1.1	4.0

their community in positions of leadership, this has profound implications for the level and direction of political and economic discourse in our country. But can schools effect these types of changes on students? We can answer this question and assess whether the actual classroom environment has had an impact on these students' attitudes toward members

TABLE 12 *Attitudes about Civic Participation (Have your high school experiences increased your interest in:)*

Q28a. *Current events?*

	White (%)	*African American (%)*	*Other (%)*
Greatly Increased	20.4	23.5	20.9
Somewhat Increased	55.1	52.2	51.9
No Effect	22.9	22.9	22.5
Decreased	1.6	1.4	4.7

Q28c. *Volunteering in your community?*

	White (%)	*African American (%)*	*Other (%)*
Greatly Increased	20.8	20.3	14.8
Somewhat Increased	36.6	44.7	37.5
No Effect	39.5	31.3	43.0
Decreased	3.1	3.8	4.7

Q28e. *Participating in elections?*

	White (%)	*African American (%)*	*Other (%)*
Greatly Increased	14.6	19.1	16.3
Somewhat Increased	32.4	41.7	29.5
No Effect	49.3	36.1	48.1
Decreased	3.7	3.1	6.2

Q28g. *Taking on leadership roles in your school?*

	White (%)	*African American (%)*	*Other (%)*
Greatly Increased	28.9	39.5	20.9
Somewhat Increased	38.0	39.5	44.2
No Effect	29.7	19.6	27.1
Decreased	3.4	1.4	7.8

Q28k. *Taking on leadership roles in your community?*

	White (%)	*African American (%)*	*Other (%)*
'Greatly Increased	18.8	27.1	16.3
Somewhat Increased	33.2	36.0	31.0
No Effect	43.6	32.2	46.5
Decreased	4.4	4.8	6.2

Q28l. *Voting for a senator or president from a minority racial or ethnic group?*

	White (%)	*African American (%)*	*Other (%)*
Greatly Increased	12.8	22.6	10.9
Somewhat Increased	25.2	34.9	36.4
No Effect	54.1	36.6	43.4
Decreased	7.8	5.8	9.3

of other racial groups using a simple OLS regression to answer the question: Is the level of curricular diversity related to students' attitudes toward living and working in multiracial settings? As the results in Table 13 seem to indicate, the answer to this question is "yes."

Regression Analysis

Table 13 lists the results of a linear regression model fitted to the outcome LIVE_WORK, which is a composite similar to the HIEDASP variable adddressed in Table 10. LIVE_WORK describes students' attitudes toward living and working in multiracial settings. The regression analysis resulting in Table 13 uses LIVE_WORK as an outcome variable and uses the same predictors as the previous regression model: immigrant status, gender, race, school support for higher educational aspirations, curricular diversity, and the interactions between race and the school variables. Results from Table 13 indicate that there is, in fact, a positive relationship between perceived curricular diversity (CURDIV) and attitudes toward living and working in multiracial settings (LIVE_WORK), since the coefficient on CURDIV in model (7) is positive ($b = 0.425$) and statistically significant ($p < .001$). In fact, the effect of perceived curricular diversity is statistically significant in all models (1)–(7) to the $p < .001$ level, which indicates the robustness of this finding. This finding is very important. It seems to indicate that school variables—as measured by students' perception of a school's curricular diversity—can affect the attitudes of students on this particular outcome. If perceived curricular diversity can affect students' thinking and attitudes, what about student diversity? Again, this study opens up intriguing possibilities that can only be explored by surveying multiple districts with very different levels of segregation.

It is also interesting to note that being an immigrant, a female, and black are all strongly related to attitudes toward living and working in multiracial settings, even controlling for perceived curricular diversity and teacher support. Teacher and school staff support is also positively associated with higher intentions and better attitudes toward living and working in multiracial settings. Finally, in models 5, 6, and 7, we tested for two-way interactions between each of our question predictors and race. This analysis reveals a statistically significant interaction between BLACK and CURDIV, indicating that the impact of perceived curricular diversity on attitudes toward living and working in multiracial settings differs for black and white students. The fact that the coefficient on the CURDIV*BLACK interaction is negative ($b = -0.312$) and statistically significant ($p < 0.01$) implies that the relationship between CURDIV and LIVE_WORK is steeper for white students than black students, even

TABLE 13 *Results from Regression Models on Attitudes toward Living and Working in MultiRacial Setting (LIVE_WORK)*

	Model (1)	*Model (2)*	*Model (3)*	*Model (4)*	*Model (5)*	*Model (6)*	*Model (7)*
IMMIG	2.324 (0.659)***	2.379 (0.671)***	2.136 (0.683)**	2.201 (0.668)**	2.192 (0.666)**	2.202 (0.669)**	2.195 (0.667)**
FEMALE	1.621 (0.299)***	1.454 (0.297)***	1.453 (0.295)***	1.354 (0.296)***	1.315 (0.296)***	1.367 (0.297)***	1.320 (0.295)***
BLACK	1.805 (0.333)***	1.995 (0.332)***	1.984 (0.330)***	2.088 (0.331)***	4.905 (1.200)***	1.871 (1.297)	4.171 (1.560)**
SUPPORT		0.607 (0.087)***		0.470 (0.090)***	0.457 (0.089)***	0.450 (0.105)***	0.427 (0.105)***
CURDIV			0.401 (0.054)***	0.331 (0.056)***	0.418 (0.066)***	0.332 (0.056)***	0.425 (0.067)***
BLKCDIV					–0.293 (0.120)*		–0.312 (0.123)**
BLKSUPP						0.033 (0.192)	0.140 (0.196)
#of Obs	1001	981	977	959	959	959	959
F-stat.	23.82***	29.98***	31.28***	29.93***	26.07***	24.92***	22.40***
R-squared	0.07	0.11	0.11	0.14	0.14	0.14	0.14

Standard errors in parentheses. Significance levels: ·p < .10; *p < .05; p < .01; ***p < .001

though, overall, black students in Louisville indicate a stronger intention to live and work in multiracial settings than their white counterparts.

Blacks indicate higher levels of desire to live and work in diverse settings than white students. However, the impact of perceived curricular diversity on intention to live and work in diverse settings is greater for white students. This finding has some important policy implications because it suggests that increasing the diversity of a school can narrow the gap between the attitudes of whites and blacks toward living and working in multicultural environments.

Conclusion

In the past few years, federal district courts have struck down a number of desegregation plans. However, they have been doing so without good information about the potential educational benefits of racially diverse schools. With this survey, we attempt to take the first steps in assessing whether diversity enhances educational outcomes in measurable ways. We relied on survey data from one of the nation's most integrated school districts, the Jefferson County School District in Kentucky. The survey questions Louisville students answered were designed to discern how high school students attending interracial schools believed that the diversity of their schools affected what they have learned, their educational aspirations, and their plans for the future.

In order to explore the concept of diversity benefits, we looked at three specific educational outcomes: 1) peer interaction and critical thinking; 2) educational goals for the future and college access; and 3) principles of citizenship and democracy. By answering three specific research questions involving these outcomes, we've established several key facts about Louisville.

Our findings suggest the important impact of desegregation on this environment. First, in Jefferson County schools there are high levels of diversity in both curricular and social interactions. Second, there is a high level of equality between races in the perceived educational opportunities for students. Finally, we've established that a school's diversity can have an effect on educational outcomes, specifically the outcome of willingness to live and work in diverse environments. In these three results, we see important educational gains that may be attributed to schooling in diverse environments.

In addition, results from the survey and from our analysis of the data indicate that both black and white students attending high school in the Jefferson County schools report benefiting greatly from the diversity of their schools. Students in Louisville report strong educational benefits in

all three categories: critical thinking skills, future educational goals, and principles of citizenship. Furthermore, we see a strong uniformity in responses by racial and ethnic groups that provides evidence of a successful integration plan, as defined by greater equalization of opportunity between racial and ethnic groups in desegregated environments. Most important, we see that diversity has a positive impact on learning, on student attitudes, and on important democratic principles. Our results strongly support the findings of the Supreme Court in *Bakke* that diverse educational settings foster stronger learning experiences for all students and help to prepare them to live and work in a multiracial society.

Notes

1. Gary Orfield and John T. Yun, *Resegregation in American Schools* (Cambridge, MA: The Civil Rights Project, Harvard University, June, 1999).
2. Gary Orfield, Susan Eaton, and the Harvard Project on School Desegregation, eds., *Dismantling Desegregation: The Quiet Reversal of Brown v. Board of Education* (New York: New Press, 1996).
3. Orfield et al., *Dismantling Desegregation.*
4. Orfield et al., *Dismantling Desegregation.*
5. Orfield et al., *Dismantling Desegregation.* The exposure index can be interpreted as the percentage of white students in a school attended by the "average" or "typical" black student. See Otis Dudley Duncan and Beverly Duncan, "A Methodological Analysis of Segregation Indexes," *American Sociological Review, 20* (1955), 210–217.
6. Orfield et al., *Dismantling Desegregation.*
7. Orfield et al., *Dismantling Desegregation.*
8. William L. Taylor and Edwin Darden, "Guidance to School Boards on Race and Student Assignment," *Inside School Law, 1,* No. 1 (Winter 1999), pp. 2–5.
9. Orfield et al., *Dismantling Desegregation.*
10. *Regents of the University of California v. Bakke,* 438 U.S. 265 (1978).
11. *Wessmann v. Gittens,* 160 F.3d 790 (1st Cir. 1999).
12. Taylor and Darden, "Guidance to School Boards."
13. Dean of Admissions Fred L. Glimp, "Final Report to the Faculty of Arts and Sciences," *65 Official Register of Harvard University, 25* (1968), 104–105.
14. See Janet Ward Schofield, "Review of Research on School Desegregation's Impact on Elementary and Secondary School Students," in *Handbook of Research on Multicultural Education,* ed. James A. Banks & Cherry A. McGee Banks (New York: Simon & Schuster MacMillan, 1995), pp. 597–616; Janet Ward Schofield, "Maximizing the Benefits of Student Diversity: Lessons from School Desegregation Research," in this volume; Jomills Henry Braddock, "The Perpetuation of Segregation Across Levels of Education: A Behavior Assessment of the Contact-Hypothesis," *Sociology of Education, 53* (1980), 178–186; Amy Stuart Wells and Robert L. Crain, "Perpetuation Theory and the Long-Term Effects of School Desegregation," *Review of Educational Research, 64* (1994), 531–555; James M. McPartland and Jomills Henry Braddock, "Going to College and Getting a Good Job: The Impact of Desegregation," in *Effective School Desegregation: Equality, Quality, and Feasibility,* ed. Willis D. Hawley (London: Sage, 1981); Patricia Gurin, "The Compelling Need for Diversity in Higher Education," expert testimony in *Gratz et al. v. Bollinger et al.* (No 97-75231 E.D. Mich.,

BEST COPY AVAILABLE

filed 1997) and *Grutter et al. v. Bollinger et al.* (No 97-75928 E.D. Mich., filed 1997), 1999.

15. See Robert L. Crain and Rita E. Mahard, "The Effect of Research Methodology on Desegregation Achievement Studies: A Meta-Analysis," *American Journal of Sociology, 88* (1983), 839–854; Robert L. Crain, "School Integration and the Academic Achievement of Negroes," *Sociology of Education, 44* (1971), 1–26; Schofield, "Review of Research," "Maximizing the Benefits."
16. Wells and Crain, "Perpetuation Theory"; Orfield et al., *Dismantling Desegregation.*
17. Marvin P. Dawkins, "Black Students' Occupational Expectations: A National Study of the Impact of School Desegregation," *Urban Education, 18* (1983), 98–113; Jon W. Hoelter, "Segregation and Rationality in Black Status Aspiration Processes," *Sociology of Education, 55* (1982), 31–39.
18. Braddock, "The Perpetuation of Segregation"; McPartland and Braddock, "Going to College"; Wells and Crain, "Perpetuation Theory."
19. Braddock, "The Perpetuation of Segregation"; McPartland and Braddock, "Going to College"; Wells and Crain, "Perpetuation Theory."
20. Gurin, "The Compelling Need."
21. Schofield, "Review of Research," "Maximizing the Benefits"; William Trent, *Desegregation Analysis Report* (New York: Legal Defense and Education Fund, 1991); Robert L. Crain, "School Integration and Occupational Achievement of Negroes," *American Journal of Sociology, 75* (1970), 593–606; Crain, "School Integration and the Academic Achievement of Negroes."
22. Wilkerson and Associates, "Student Assignment Survey: Summary of July 1996 Findings."
23. Wilkerson and Associates, "Student Assignment Survey."
24. Wilkerson and Associates, "Student Assignment Survey."
25. Researchers from around the country were brought together by The Civil Rights Project, Harvard University, in November 1999 to develop the DAQ instrument.
26. The DAQ instrument will be used in several school districts around the country during the 2000–2001 academic year.
27. There are a total of 6,082 juniors in the Jefferson County School District. The sample drawn was to include one-sixth of the junior population in the district (1,014). The sampling frame included all schools in the district, and the size of the sample within each school was proportional to the school size. The final sample includes 1,128 students, but due to mixed-grade classrooms there are 913 juniors. In this analysis we have chosen to use all of the data, including the 125 tenth graders and 90 twelfth graders in the sample.
28. Abdelmonem A. Afifi and Virginia Clark, *Computer-Aided Multivariate Analysis,* 3rd ed. (London: Chapman & Hall, 1996).
29. We tested for the significance of mother's and father's education, found that they were not significant in any of the models, and thus dropped them from the final analysis.
30. Gurin, "The Compelling Need." Also, a recent study of Harvard and Michigan law school students found powerful effects on learning in various fields of legal studies. See Gary Orfield and Dean Whitla, "Diversity and Legal Education: Student Experiences in Leading Law Schools," in this volume.
31. Ibid.
32. The equations we use for all of these analyses are of the form:
    $\text{Outcome} = \alpha + \beta_1(\text{IMMIGRANT}) + \beta_2(\text{FEMALE}) + \beta_3(\text{BLACK}) + \beta_4(\text{SUPPORT}) + \beta_5(\text{CURDIV}) + \beta_6(\text{BLACK*CURDIV}) + \beta_7(\text{BLACK*SUPPORT}) + \gamma$
33. Gurin, "The Compelling Need."

Appendix

The composite variables were all constructed the same way. We examined the items in the DAQ and determined which questions represented the appropriate constructs. For each of the constructs we calculated the Cronbach's alpha reliability and performed a principal components analysis. From Cronbach's analysis it was clear that these questions were highly correlated with one another. None of our prospective constructs scored reliabilities below 0.65. Principal components analysis showed that a simple additive construction (each construct equally weighted and summed together) would result in a construct that corresponded to the first eigenvalue for the construct, and would account for over 40 percent of the variance in each of our perspective constructs.

TABLE A ***Description of Outcome Variables in the Analysis of Diversity Effects***

Variable Name	*Description*	*Corresponding Questions (answer choices provided)*
HIEDASP	Higher Education Aspirations	How interested are you in the following: *(Very Interested—Interested—Somewhat Interested—Not Interested)* Taking a foreign language after high school? Taking an honors or AP mathematics course? Taking an honors or AP English course? Going to a four-year college?
LIVE_WORK	Interest and intention to live and work in multiracial setting as an adult	How interested are you in the following: *(Very Interested—Interested—Somewhat Interested—Not Interested)* Taking a course focusing on other cultures after high school? Traveling outside of the United States? Attending a racially/ethnically diverse college campus? Living in a racially/ethnically diverse neighborhood when you are an adult? Working in a racially/ethnically diverse setting when you are an adult? How prepared do you feel to work in a job setting where people are of a different racial or ethnic background than you are? *(Very Prepared— Prepared —Somewhat Prepared—Reluctant to do so)* How important is it for you to attend a college that has a racially and ethnically diverse student body? *(Extremely Important—Important—Somewhat Important—Not Important)* How likely do you think it is that you will work with people of racial and ethnic backgrounds different from your own? *(Very Likely—Likely—Not Likely—Do Not Know)*

TABLE B *Description of Predictor Variables in the Analysis of Diversity Effects*

Variable Name	*Description*	*Corresponding Questions (answer choices provided)*
SUPPORT	Sense of school/ teacher support to pursue higher education	How strongly have teachers, counselors, or other adults in this school encouraged you to attend college? *(Strongly Encouraged—Somewhat Encouraged—Neither Encouraged nor Discouraged—Discouraged)*
		How much information about college admissions have your teachers, counselors, or other adults in this school given you? *(A Lot—Some—A Little—None)*
		How strongly have your teachers, counselors, or other adults in this school encouraged you to take honors and/or AP classes? *(Very Strongly—Somewhat Strongly—Not at All—Discouraged)*
CURDIV	Curricular diversity in English and social science classes as measured by course readings/ materials and classroom discussion	In your social studies or history class, how often do you read about the experiences of different cultures and racial and ethnic groups? *(Frequently—Sometimes—Rarely—Never)*
		During classroom discussions in your social studies or history class, how often is a range of viewpoints expressed about the topics you are studying? *(Frequently—Sometimes—Rarely—Never)*
		During classroom discussions in your social studies or history class, how often are racial issues discussed and explored? *(Frequently—Sometimes—Rarely—Never)*
		In your English class, how often do you read about the experiences of different cultures and racial and ethnic groups? *(Frequently—Sometimes—Rarely—Never)*
		During classroom discussions in your English class, how often are racial issues discussed and explored? *(Frequently—Sometimes—Rarely—Never)*

BEST COPY AVAILABLE